

**Road Weather Management Program
Best Practices for Road Weather Management**

PUBLICATIONS LIST

TITLE:

ENHANCEMENTS TO THE VIRTUAL WEATHER STATION
METHODOLOGY

ABSTRACT:

Representative climatic conditions at any location can be estimated using data from nearby weather stations. The reasonableness of such estimates depends on the quality of weather data as well as method used in developing such estimates. This study investigates the possibility of improving the accuracy of climatic estimates. Four different methods of estimating the climatic parameters were studied and it was found that simple average of climatic parameters from nearby weather stations provides the most reasonable estimate. It was found that the elevation difference between the desired location and nearby weather stations significantly affects estimate bias. A relationship was developed to remove the bias due to elevation difference.

SOURCE(S):

Transportation Research Board 81st Annual Meeting, Search
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